

**Amendments to the Claims:**

Please amend claims 1-6, 8-9 and 17-18. This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A population of primary cultured preadipocytes, wherein the preadipocytes are isolated and established from adipose tissue and stably maintain a foreign DNA encoding a protein that is secreted outside of a cell, and wherein the DNA is operably linked to a promoter sequence, ~~and wherein the population is substantially free of non-adipocyte cells.~~

2. (Currently Amended) The preadipocyte population ~~adipocyte~~ of claim 1, wherein the DNA is transferred to the cell by a retroviral vector or adeno-associated viral vector.

3. (Currently Amended) The preadipocyte population ~~adipocyte~~ of claim 1, which has the ability to significantly express the protein in vivo for at least 20 days.

4. (Currently Amended) The preadipocyte population ~~adipocyte~~ of claim 1, which is used to release the protein into the blood flow.

5. (Currently Amended) The preadipocyte population ~~adipocyte~~ of claim 1, wherein the protein is insulin or glucagon-like peptide 1 (GLP-1).

6. (Currently Amended) A method of producing a population of primary cultured preadipocytes, wherein the method comprises the steps of:

(1) isolating adipocytes and establishing a primary culture of preadipocytes;  
and

(2) transferring, ~~and then stably maintaining in the genome into the~~ preadipocytes a foreign DNA operably linked to a promoter sequence and encoding a protein that is secreted outside of the cell, ~~wherein the population is substantially free of non-~~

**adipocyte cells and then stably maintaining the foreign DNA in the genome of the preadipocytes.**

7. (Original) The method of claim 6, wherein the foreign gene is transferred by a retroviral vector or adeno-associated viral vector.

8. (Currently Amended) A population of primary cultured **preadipocytes**, which is produced by the method of claim 6.

9. (Currently Amended) An implant composition for gene therapy, wherein the composition comprises a population of primary cultured **preadipocytes**, which are isolated and established from adipose tissue and stably maintain in the genome a foreign DNA encoding a protein that is secreted outside of the cell, and a pharmaceutically acceptable carrier, wherein the DNA is operably linked to a promoter sequence, ~~wherein the population is substantially free of non-adipocyte cells.~~

10. (Original) The implant composition of claim 9, which further comprises an extracellular matrix component.

11. (Original) The implant composition of claim 9, which further comprises an angiogenesis factor.

12-16. (Cancelled)

17. (Currently Amended) A population of primary cultured **preadipocytes**, which is produced by the method of claim 7.

18. (Currently Amended) A population of primary cultured **preadipocytes**, wherein the **preadipocytes** are isolated and established from adipose tissue and stably maintain a foreign DNA encoding a protein that is secreted outside of a cell, wherein the DNA is operably linked to a promoter sequence, and wherein the population is obtained by ceiling culture **and substantially free of non-adipocyte cells.**

Appl. No. 10/518,472

Amdt. dated May 16, 2008

Reply to Office Action of December 31, 2007

PATENT

19. (Previously Presented) The method of claim 6, wherein the primary culture is established in step (1) by ceiling culture.